SEQUENCE LISTING

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<120> METHODS FOR INDUCING ANALGESIA

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<222> (6)..(6)
<223> Polymer connected to epsilon-amino group

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Tyr Gly Gly Phe Met Lys
1 5

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<223> Polymer connected to alpha-amino group

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<223> Polymer connected to epsilon-amino group

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1 5

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1 5

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<223> AMIDATION

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Phe Arg Trp Trp Tyr Lys
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Arg Trp Ile Gly Trp Lys
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<223> AMIDATION

<220>
<221> UNSURE
<222> (6)..(6)
<223> Xaa can be any of the twenty naturally occurring

amino acids

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Trp Trp Pro Lys His Xaa
1 5

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<213> synthetic construct

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<222> (4)..(4)
<223> AMIDATION

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<221> UNSURE
<222> (4)..(4)
<223> Xaa is either Lys or Arg

<400> 7

Trp Trp Pro Xaa
1

<210> 8
<211> 6
<212> PRT
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<223> AMIDATION

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<222> (6)..(6)
<223> Xaa can be any one of the naturally occurring ami

no acids

<400> 8

Tyr Pro Phe Gly Phe Xaa
1 5

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<222> (1)..(5)
<223> Amino acids are in the D-form

<220>
<221> MOD_RES
<222> (6)..(6)
<223> n is 0 or 1

<220>
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<222> (7)..(7)
<223> Xaa is Gly or the D-form of a naturally occurring amino acid

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<222> (7)..(7)
<223> AMIDATION

<400> 9

Ile Met Ser Trp Trp Gly Xaa
1 5

<210> 10
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<212> PRT
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<222> (1)..(4)
<223> Amino acids are in the D-form

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Xaa is Gly or the D-form of a naturally-occurring amino acid

<220>
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<222> (6)..(6)
<223> AMIDATION

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Ile Met Thr Trp Gly Xaa
1 5

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<213> synthetic construct

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<222> (2)..(2)
<223> Xaa is A1, wherein A1 is the D-form of Nve or Nle

<220>
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<222> (3)..(3)
<223> Xaa is B2, wherein B2 is Gly, Phe, or Trp

<220>

<221> MOD_RES
<222> (4)..(4)
<223> Xaa is C3, wherein C3 is Trp or Nap

<220>
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<222> (4)..(4)
<223> AMIDATION

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Tyr Xaa Xaa Xaa
1

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<213> synthetic construct

<220>
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<222> (1)..(1)
<223> Tyr has at its N-terminus an Me-x-H-y-N group, wherein x is 0, 1,
or 2; and y is 0, 1, or 2, with the proviso that x and y is never greater than

<220>
<221> MOD_RES
<222> (1)..(2)
<223> The amine between the first Tyr and the second Tyr is methylated

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Xaa-z, wherein Xaa is Phe, (D)Phe, or NHBzl, and wherein z
is 0 or

<220>
<221> MOD_RES
<222> (3)..(3)
<223> AMIDATION

<400> 12

Tyr Tyr Xaa
1

<210> 13
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<212> PRT
<213> synthetic construct

<220>
<221> MOD_RES
<222> (4)..(4)
<223> Xaa is D4, wherein D4 is Lys or Arg

<220>
<221> MOD_RES
<222> (5)..(5)
<223> His is His-z, wherein z is 0 or 1

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Xaa is Xaa-z, wherein Xaa is a naturally occurrin
g amino acid and
z is 0 or

<220>
<221> MOD_RES
<222> (6)..(6)
<223> AMIDATION

<400> 13

Trp Trp Pro Xaa His Xaa
1 5

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<213> synthetic construct

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

<400> 14

Tyr Xaa Phe Phe
1

<210> 15
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<212> PRT
<213> synthetic construct

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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<221> MOD_RES
<222> (4)..(4)
<223> AMIDATION

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Tyr Xaa Phe Phe
1

<210> 16

<211> 4
<212> PRT
<213> synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Me), i.e. N-alpha-methyltyrosi
ne

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

<400> 16

Tyr Xaa Phe Phe
1

<210> 17
<211> 4
<212> PRT
<213> synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Cmp), i.e. N-alpha-cyclopropyl
methyltyrosine

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

<400> 17

Tyr Xaa Phe Phe

1

<210> 18
<211> 4
<212> PRT
<213> synthetic construct

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<221> MOD_RES
<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Hex), i.e. N-alpha-hexyltyrosi
ne

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

<400> 18

Tyr Xaa Phe Phe
1

<210> 19
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<221> MOD_RES
<222> (1)..(1)
<223> Tyr is Tyr(N-alpha-Et2), i.e. N-alpha-diethyltyro
sine

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

<400> 19

Tyr Xaa Phe Phe
1

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<222> (1)..(1)
<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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Tyr Xaa Phe Phe
1

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<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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Tyr Xaa Phe Phe
1

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<222> (1)..(1)
<223> Tyr is H-Tyr(3-F), i.e. 3-fluorotyrosine

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<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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Tyr Xaa Phe Phe
1

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<211> 4
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<213> synthetic construct

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<222> (1)..(1)
<223> Tyr is H-Tyr(3-Cl), i.e. 3-Chlorotyrosine

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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1

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<222> (1)..(1)
<223> Tyr is H-Tyr(3-Br), i.e. 3-bromotyrosine

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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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1

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n

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1

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<223> Tyr is Dmt, i.e. 2,6-dimethyltyrosine

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<222> (2)..(3)
<223> nonpeptidyl bond

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<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr
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n

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<222> (4)..(4)
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Tyr Xaa Phe Phe
1

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<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr
ahydroisoquinoli
n

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1

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<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr

ahydroisoquinoli
n

<220>
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<222> (3)..(3)
<223> Phe is -NH]Hfe, i.e. homophenylalanine

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Tyr Xaa Phe Phe
1

<210> 29
<211> 4
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<222> (1)..(1)
<223> Tyr is Tyr(NMe), i.e. N-methyltyrosine

<220>
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<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr
ahydroisoquinoli
n

<220>
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<222> (3)..(3)
<223> Phe is -NH]Hfe, i.e. homophenylalanine

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Tyr Xaa Phe Phe
1

<210> 30
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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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<222> (3)..(3)
<223> Gly is Phg, i.e. phenylglycine

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Tyr Xaa Gly Phe
1

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<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
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Tyr Xaa Trp Phe
1

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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<222> (4)..(4)
<223> AMIDATION

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1

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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Tyr Xaa His Phe
1

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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<221> MOD_RES
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<223> Ala is 2-Nal, i.e. 3-(2'-naphthyl)alanine

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1

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<223> Xaa is Atc, i.e. 2-aminotetralin-2-carboxylic aci
d

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Tyr Xaa Xaa Phe
1

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<220>
<221> MOD_RES
<222> (4)..(4)
<223> Phe is Phe(pNO2), i.e. 4-nitrophenylalanine

<400> 36

Tyr Xaa Phe Phe
1

<210> 37
<211> 4
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-carboxylic acid

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<222> (4)..(4)
<223> Phe is Phe(pNO2), i.e. 4-nitrophenylalanine

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1

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<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3
-carboxylic acid

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-carboxylic acid

<220>
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Tyr Xaa Phe Phe Val Val Gly
1 5

<210> 40
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-carboxylic acid

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<400> 40

Tyr Xaa Phe Phe Tyr Pro Ser
1 5

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<400> 41

Tyr Xaa Trp Phe Tyr Pro Ser
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-carboxylic acid

<220>
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<222> (4)..(4)
<223> Phe is Phe(pNO2), i.e. 4-nitrophenylalanine

<220>
<221> MOD_RES
<222> (7)..(7)
<223> AMIDATION

<400> 42

Tyr Xaa Trp Phe Tyr Pro Ser
1 5

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-carboxylic acid

<220>
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<222> (6)..(6)
<223> Nle

<220>
<221> MOD_RES
<222> (7)..(7)

<223> AMIDATION

<400> 43

Tyr Xaa Phe Phe Leu Leu Asp
1 5

<210> 44
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<212> PRT
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<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 44

Tyr Xaa Phe
1

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<211> 3
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<213> synthetic construct

<220>
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<222> (2)..(2)
<223> Xaa is Tic, i.e. 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<220>
<221> MOD_RES
<222> (3)..(3)
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<400> 45

Tyr Xaa Phe
1

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<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr
ahydroisoquinoli
n

<220>
<221> MOD_RES
<222> (2)..(3)
<223> nonpeptidyl bond

<400> 46

Tyr Xaa Phe
1

<210> 47
<211> 4
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<213> synthetic construct

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Tic-psi-[CH2-], i.e. 3-methyl-1,2,3,4-tetr
ahydroisoquinoli
n

<220>
<221> MOD_RES
<222> (2)..(3)
<223> nonpeptidyl bond

<400> 47

Tyr Xaa Phe Phe
1

<210> 48
<211> 5
<212> PRT
<213> synthetic construct

<400> 48

Tyr Gly Gly Phe Met
1 5

<210> 49
<211> 6
<212> PRT
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<400> 49

Tyr Gly Gly Phe Met Lys
1 5

<210> 50
<211> 6
<212> PRT
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<400> 50

Tyr Gly Gly Phe Leu Lys
1 5

<210> 51
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<212> PRT
<213> synthetic construct

<220>
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<222> (1)..(1)
<223> NH2 of Tyr is blocked by butyloxycarbonyl group

<400> 51

Tyr Gly Gly Phe Leu Lys
1 5

<210> 52
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<222> (1)..(1)
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<220>
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<222> (6)..(6)
<223> polymer connected to epsilon-amino group

<400> 52

Tyr Gly Gly Phe Leu Lys
1 5